



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

INDEX TO VOLUME III.

A.
II.R.H. PRINCE ALBERT, President of the Society; letter from, suggesting that the Society should visit the Paris Exhibition, 615
Abate, F., direct nature printing from wood, in an endless way, applied to the decorative arts, 544
Act, free public libraries and museums, of 1850, bill to repeal, 102
 notes on operation of, 737
 of 1855, 711
 (Scot-land), 748
 (Ire-land), 750
Adams, W. Bridges, canals and railways in India, 427, 431
Address of Viscount Ebrington, M.P., chairman of council, on opening of one hundred and first session, 1
Adulteration of food; bread, 61, 78, 106
 wares, 110
Agricultural produce, general exhibition of, in connection with the Paris Universal Exhibition of 1855, 343
Agriculture, British, fourth paper on; and account of Mr. Mechi's operations at Tip-tree-hall farm, 49
 re-marks on ditto, 95
American patents; annual report of the Commissioner for 1853, 99
 ditto for 1854, 256
Animal kingdom, on the commercial products of the, 520
 produce and manufactures, explanatory memorandum descriptive of the selections of samples of, in the Trade Museum, 494
 products, a few remarks on, 663
 the silk series, 747
Annual statement of receipts, payments and expenditure, for the year ending 31st May, 1855, 540
Appendix I., Catalogue of Exhibition of Inventions
Appendix II., Catalogue of Chalon Exhibition
Appleton, W., and Co., patent bed or mattress for the army and navy, for travellers and emigrants, and also for use in camp hospitals, 463
Architecture, new system of; on a new method of teaching drawing, involving the principle of a, 287
 notes on the revision of, in connection with the useful arts, with special illustrations of the ventilation of St. George's Hall, Liverpool, 379
Art, Industrial, Society for the Promotion of, Calcutta, 751
Artisans' visits to Paris, 97, 411, 463, 571, 603, 627
 Committee as to, 17, 133

Atherton, C., the capability for mercantile transport service of steam ships, with reference to the mutual relations of their tonnage, displacement, engine - power, steaming speed, distance to be run without re-coaling, tons weight of cargo, and the expense incurred per ton of cargo conveyed, 466
 Vide also Henderson
Aztec and Chinese plumagery, 93

B.
Balance sheet to 31st May, 1855, 540
Bank note question, the, 116
 notes, cheques, and similar important documents, observations on the means available for securing, against counterfeit and alteration, 89
 of England note, on the new, and the substitution of surface printing from electro-types for copper-plate printing, 81
 an examination of Mr. A. Smee's paper, by Mr. T. Grubb, 238, 545
Barford, J.G., on charcoal as a disinfectant, 101
Batteries, floating, and ships of war, on the construction of, 299
Bed or mattress for the army and navy, for travellers and emigrants, and also for use in camp hospitals, 463
Bentham, Lady, cottagers' stoves, 341
 manufacturing progress in Great Britain, 699
 notes on ventilation and warming, 12
 on gunnery, 157, 643
 on tanning sails, 793
 on vessels of war, 775
 wrought iron ordnance, 59, 555
Benzine, manufacture and application of, 104, 131, 163
Benzole. *Vide* Benzine
Bernal collection, petition of Council to House of Commons for purchase of, for the nation, 235
Bethune, D., on improvements in steam navigation, 97
Bills of Exchange, 284
Bird, J., the camp and barrack sanitary cart and portable latrines or soil pans, 687
Board management *versus* individual responsibility, 552
Boilers for the generation of steam, on the construction and proper proportion of, 182
Book orders, institute, 76, 156, 235, 284, 374, 463, 619
Books, catalogue of, for mechanics' institutes, 580, 600
 class, 577
Boring machinery, on earth, 503
Bread, adulteration of, 61, 78, 106
 use of lime water in the formation of, 481
British agriculture, fourth paper on; and account of Mr. Mechi's operations at Tip-tree-hall farm, 49
 remarks on ditto, 95

Brussels, geographical establishment at, 543
Buckmaster, J. C., on the importance of elementary science as a branch of national education; a lecture delivered before the Schoolmasters' Association, 522
Bye-laws, as passed at special general meeting held on Friday, October 19, 1855, 771

C.
Calculating machine, Scheutz's, 411
Calvert, F. Crace, on the manufacture and application of various products obtained from coal (coal-gas excepted), 17
Canals and railways in India, 427, 431
 (low-speed), for India, 558
 Vide also public works
Candle stove (portable) for heating and cooking, 134
Cannon, mortars, and Sir Howard Douglas, 599, 613
Caoutchouc, supply of, 495
Cary, F. S., notes on the Fine Arts Exhibition at Paris in 1855, 735
Catalogue of books for mechanics' institutes, 580, 600
 Chalon Exhibition, Appendix II.
 Exhibition of Inventions, Appendix I.
Cattle insurance, 231
Cedar from Canada, 613
Chadwick's, Mr. E., views on Indian irrigation, remarks on, 498
Chalk strata considered as a source for the supply of water to the metropolis, 168
 remarks on the discussion as to ditto, 230, 244, 285, 325
Chalon exhibition, 335, 519
 catalogue of, Appendix II.
Charcoal as a disinfectant, 101, 716
 on ventilation, 632, 665
 sanitary applications of, 695, 782
 peat and other vegetable, and some of its uses, 151
 the cost of, 164, 184
Charley, W., on flax and its products in Ireland, 109, 236, 523
Chemical purification of towns and cities, 644, 685
 Vide also Disinfectants
China, clothing and other productions of, 692
Chinese and Aztec plumagery, 93
Civil service reform: the colonial office, 254
Class books, 577
Classes in institutes, examination of members of, 81, 207, 578, 591
Climate, on the influence of, on production, 42
Clothing and other productions of China, 692
Coal, manufacture and application of products from; benzine, 104, 131, 163
 on the manufacture and application of various products obtained from coal (coal-gas excepted), 17

- Coinage, decimal, 63, 222, 390, 412, 697, 715, 731, 741, 753, 760, 779, 793, 803
 — a lecture on, delivered before the Metropolitan Society of Schoolmasters, 603, 616, 628
 — commission, 615, 782
 — comparative view of different systems, 326
 — list of books and pamphlets on, 639
 — principle of a, 497
 — remarks on the discussion as to, 258, 302, 376
 — the tenpenny system, 785
 — weights, and measures, international, 593
Vide also Decimal Coinage, Franklin, Minasi, and Reid
 Colonial (British) contributions to the Paris Industrial Exhibition, 111, 386, 727
 — office, the; civil service reform, 254
 Commerce, suggestions on new materials for, 146
 Commercial law, international, 133
 — appointment of a Committee on, 247
 — exchange, 284
 — observations on, 187
 — proposed congress in Paris relative to, 76
 — deputation to President of Board of Trade as to, 347
 — report of sub-committee on, 460
 — resolutions of Council as to, 81
 — products of the animal kingdom, 520
Vide also Animal products
 — resources of British Honduras, 159, 547, 646, 714, 783
 — Port Natal, 739
 Committee as to proposed Congress at Paris, for the promotion of the assimilation of the commercial laws of the great nations of the world, 247
 — on industrial pathology, report of, on trades which affect the eyes, 119
 — remarks on the report, 164
 — to consider and report on improvements in progress in Paris, 17
 — visits of artisans to Paris, 17, 97, 133
 — (sub), report of, as to international commercial law, 460
 Communications and irrigation in India, 395
 — renewed discussion on, 431
 — remarks on discussions on, 481, 499, 549, 558
 Conference, fourth annual, between the representatives of the institutions in union and the Council, 567
 Cort, R., British iron manufacture; being remarks on the report of the select committee of the House of Commons on the petition of Coningsby Cort, eldest son of the late Mr. Henry Cort, 606, 619, 632
 Cort's inventions, remarks on, 671, 717, 776
 Cottagers' stoves, 341
 Cotton, Col. Arthur, on public works for India, especially with reference to irrigation and communications, 395
 — renewed discussion on, 431
 — remarks on discussions on, 481, 499, 549, 558
 Council and officers, general meeting for election of, 589
 Crime (juvenile) as it affects commerce, and the best means of repressing it, 415
 — *Vide also* Reformatory discipline
 D.
 Decimal coinage, on, 63, 222, 390, 412, 697, 715, 731, 741, 753, 760, 779, 793, 803
 — a lecture, delivered before the Metropolitan Society of Schoolmasters, 603, 616, 628
 — commission, 615, 782
 — comparative view of different systems, 326
 Decimal coinage, list of books and pamphlets on, 639
 — principle of a, 497
 — remarks on the discussion as to, 258, 302, 376
 — the tenpenny system, 785
 — weights and measures, international, 593
 — system for bankers and merchants, 716
 — Is a complete, practicable in this country? 761
 — the penny in a, 741
 — of money for the United Kingdom, on the basis of a, 219
 Decimalization of our currency and accounts, 302, 344, 390
 Decimalizing English moneys and weights, on the expediency of at once, 211
 Decorative arts, direct nature printing from wood, in an endless way, applied to, 544
 Designs for articles of utility registered, weekly list of, 16, 32, 48, 64, 80, 96, 108, 118, 132, 166, 210, 234, 262, 286, 310, 334, 346, 378, 394, 414, 430, 462, 486, 502, 530, 554, 566, 602, 626, 638, 650, 674, 698, 722, 734, 746, 758, 770, 790, 802, 806
 Diagrams and apparatus, 574
 Dickens, T., the commercial consideration of the silkworm and its products, 197
 Dinner, one hundred and first anniversary, 584
 Diseases of miners, on the, 347
 Disinfectant, charcoal as a, 101, 716
 Disinfectants, 684
 — *Vide also* Chemical purification of towns
 Distribution of parliamentary papers and reports, 580, 625
 — public documents, 103
 Douglas, Sir Howard, and mortars and cannon, 599, 613
 Drawing, on a new system of teaching, involving the principle of a new system of architecture, 287
 E.
 Earth-boring machinery, on, 503
 Ebrington, Viscount, M.P., (Chairman of Council) address of, on opening of one hundred and first session, 1
 Economic gallery, Paris Exhibition, 759, 803
 — museum. *Vide* Twining.
 Education and physical training of women, 795
 — elementary science as a branch of national, 522
 — middle class, 797
 Educational exhibition, list of lectures delivered in connection with the, 540
 Electrotypes for copper-plate printing, and the substitution of surface printing in the new Bank of England note, 81
 — *Vide also* Grubb
 Examinations of members of classes in Institutes, 81, 207, 578, 591
 Exhibition, Chalons, 335, 519
 — catalogue of, Appendix II
 — educational, list of lectures delivered in connection with the, 540
 — Munich Industrial, of 1854; Report on, 9, 22
 — collection of photographs illustrative of, 463
 — of a collection of articles of raw and partly manufactured animal produce, 335
 — explanatory memorandum, 494
 — of 1851, trade collection of the Great, 62
 — of inventions, 167, 335
 — catalogue of, Appendix I.
 — at mechanics' institutions, 550
 — of Northern Union of literary and mechanics' institutes, 733
 — Paris Universal, of 1855; artisans' proposed visits to, 411, 463, 571, 603, 627
 — Committee as to, 17, 97, 133
 — British colonial contributions to, 111, 386, 727
 — economic gallery, 759, 803
 Exhibition, Paris Universal, of 1855; fine arts exhibition, 683, 735, 754
 — general exhibition of agricultural produce in connection with, 343
 — letter from H.R.H. Prince Albert, President of the Society, suggesting that the Society should visit the, 615
 — mineral products displayed at, 726
 — Nottingham goods at, 760
 — offices in Paris for British section, 93
 — products exhibited by colony of New South Wales, 727
 — proposed excursion of members to visit, 298, 615, 627, 639, 651, 663, 675
 — remarks on ditto, 596, 613, 623, 636, 652
 — the silks of Piedmont in—*Bombyx Cynthia*, 781
 — visit of members to, 723
 Eyes, trades which affect the, report of committee on industrial pathology on, 119
 — remarks on ditto, 164
 F.
 Factories, panopticon principle of building, 595
 Factory system in the United States, 157
 Farinas and starches, on new, 774
 Fibre, plaitain, 30
 Findlay, A. G., on the influence of climate on production, 42
 Fine arts exhibition, Paris, 683, 735, 754
 Fire-damp, 164
 — proof safes, 680
 Flax and its products in Ireland, 109, 236, 523
 — dressers' trade, 111
 Food, adulteration of—bread, 61, 78, 106
 — What is? 695
 Forgery of bank-notes, &c. *Vide* Grubb, Smees, and Stones
 Franklin, J. A., on the expediency of at once decimalizing English moneys and weights, 211
 F.S.A. question, the, 111, 130, 164, 207, 231
 Furnace, the down-draught smokeless, 100
 G.
 General meeting for altering and revoking existing Bye-laws, and making others, 771
 — election of Council and officers, 589
 — to receive report of Council on proceedings of past year, and auditors' annual statement of receipts and expenditure, 531
 Geographical establishment at Brussels, 543
 Glycerine, on a new process of obtaining and purifying, 729
 Great Britain, manufacturing progress in, 699
 Grubb, T., an examination of Mr. A. Smees' paper "On the substitution of surface printing for copper-plate, in the production of bank notes," 238, 545
 Gum, supply of, 79
 Gunnery, on, 157, 643
 Guns, cast and wrought-iron, 78
 — long range, 672
 — wrought-iron, 740
 — *Vide also* Ordnance
 H.
 Hampton Court Palace; discussion in House of Lords as to loss of a picture, 623
 Hants and Wilts Educational Society; report of annual meeting, 687
 Heath v. Unwin—patent law, 681
 Heeklers, important to, 228
 Henderson, A., the past and present position of life-boats, 510
 — on the "descriptive measurement" of ships and steamers, defining their tonnage, displacement, and capacity; and a review of the bills recently brought before Parliament with reference to their safety

and capabilities for mercantile transport service, 656
Vide also Atherton
Hertford, adoption of the Public Libraries Act in, 801
Holmes' patent tyre, 503
Homersham, S. C., the chalk strata considered as a source for the supply of water to the metropolis, 168
—, remarks on discussion as to ditto, 230, 244, 285, 325
Homestalls, covered, 62
Honduras (British) on the oils and other vegetable produce of, 159
— the natural productions of, 547
— the raw produce of, 646, 714
— the commercial resources of, 783
Horse-power, measure of. *Vide* Atherton.
Hunt, R., F.R.S., on the mineral industries of Great Britain, 363

I.

Improvements in progress in Paris, Committee as to, 17
India, on public works for, especially with reference to irrigation and communications, 395
— renewed discussion, 431
— remarks on discussions, 481, 499, 549, 558
— railways and canals in, 427, 431
— (low speed) and canals for, 558
Indian irrigation, remarks on Mr. E. Chadwick's views on, 498
— silk worm in Malta, failure of, 639
Industrial art, Society for the Promotion of, Calcutta, 751
— pathology, report of Committee on, on trades which affect the eyes, 119
— remarks on the report, 164
— the diseases of miners, 347
— the flax-dressers' trade, 111, 228
Institute book orders, 76, 156, 235, 284, 374, 463, 519
— classes, examinations of members of 81, 207, 578, 591
Institutes lectures at, 183
— legal position of, 581
— mechanics', and the working classes, 564, 611, 642
— catalogue of books for, 580, 600
— exhibition of inventions at, 550
— notices to, 211, 628
— proceedings of. *Vide* Proceedings of Institutions
— property of, 76
— rating of, 13, 582
Insurance, cattle, 231
International commercial law, 133
— appointment of a Committee, 247
—; bills of exchange, 284
— observations on, 187
— proposed congress in Paris relative to, 76,
deputation to President of Board of Trade as to, 347
— report of Sub-committee on, 460
— resolutions of Council as to, 81
— decimal coinage, weights, and measures, 593
— statistical congress at Paris, 685, 731
Inventions, exhibition of, 167, 335
— catalogue of, Appendix I.
— at mechanics' institutions, 550
Iron industry of the United States, 247
— remarks on Prof. Wilson's paper on, 305, 328,

Iron manufacture, British; remarks on the report of the select committee of the House of Commons on the petition of Coningsby Cort, eldest son of Mr. Henry Cort, 606, 619, 632
— remarks on ditto, 671, 717, 776
— statistics of the, 183, 229, 301, 375
— on the growth and expansion of our foreign and colonial trade in, and the fiscal obstructions to its extension, 65
Irrigation and communications in India, 395
— renewed discussion on, 431
— remarks on discussions on, 481, 499, 549, 558
— Indian, remarks on Mr. E. Chadwick's views on, 498

J.

Jeffreys, J., F.R.S., remarks on ships of war and floating batteries, 299

K.

Kuhlman, Fr., on hydraulic limes, artificial stones, and different novel applications of soluble alkaline silicates, 609.
Kumpa, Herr J., on a new method of teaching drawing, involving the principle of a new system of architecture, 287

L.

Lamp, miners' safety, 363
Latrines, portable, or soil pans; the camp and barrack sanitary cart and, 687, 697
Law, commercial, international, 133
— appointment of a Committee on, 247
— bills of exchange, 284
— observations on, 187
— proposed congress in Paris relative to 76
deputation to President of Board of Trade as to, 347
— report of sub-committee on, 460
— resolutions of Council as to, 81
— of partnership, 58, 77, 104
Lawes, J. B., F.R.S., on the sewage of London, 263.
— renewed discussion on ditto, 311
Lecturers, list of, 81, 785, 804
Lectures and lecturers, 574
— at institutions, 183
— list of, delivered in connection with the educational exhibition, 540
Legal position of institutes, 581
Levi, L., observations on the proposed congress for the improvement of international commercial law, 187
Libraries act, public, adoption of in Hertford, 801
— free public, and museums, on establishment of, 572, 733
— Act of 1850, bill to repeal, 102
— notes on operation of, 737
— 1855, 711
— (Scotland), 748
— (Ireland), 750
Library and museum, Salford public, 739, 792
— free, for London rejected, 791
— public, Liverpool, 15
Life-boats, on, 594
— the past and present position of, 510
Lighting, on, 738
Lightning, shipwrecks by, 127
Limewater, use of, in formation of bread, 481
Limes, hydraulic, and artificial stones, and different novel applications of soluble alkaline silicates, 609
Limited liability in partnerships, 77, 104
Liverpool free public library, 15
Longmaid, W., on peat and other vegetable charcoal and some of its uses, 151
Vide also Peat charcoal

Loseby, E. T., a new parallel and radial rule, 792
— remarks on ditto, 803

M.

Macgowan, D. J., M.D., on Chinese and Aztec plumagery, 93
Mackworth, H., on the diseases of miners, 347
Manufactures and trade, on the mutual relations of, 487
Manufacturing progress in Great Britain, 699
Manure, liquid, 148, 184
—, sewage. *Vide* Sewage manure
Manuring, underground, 783
—; is it a novelty? 228
Materials, strength of, 742, 804
Mather, C., on earth-boring machinery, 503
Mc Arthur, W., notes on the products exhibited by the colony of New South Wales at the Paris Universal Exhibition of 1855, 727
Measures, weights and coinage, international decimal, 593
Mechanics' Institutions and the working classes, 564, 611, 642
—, catalogue of books for, 580, 600
— exhibition of inventions at, 550
Mechi, J. J., fourth paper on British agriculture, with an account of his own operations at Tiptree-hall farm, 49
— remarks on ditto, 95
Men of science and patentees, 596, 610
Mercantile transport service, the capabilities for, of steam ships, 466
Vide also Henderson.
Meteorological Society, British, 59
Minasi, F. J., Decimal Coinage; being a lecture delivered before the Metropolitan Society of Schoolmasters, 603, 616, 628
—, on the basis of a decimal system of money for the United Kingdom, 219
Mineral industries of Great Britain, on the, 363
— products exhibited at the Paris Universal Exhibition of 1855, 726
Miners, on the diseases of, 347
— safety lamp, 363

MISCELLANEA:—

Adoption of the Public Libraries Act in Hertford, 801
Birmingham gun trade, 745
Distribution of parliamentary papers, 625
Gum, supply of, 79
Liverpool free public library, 15
Oil and alcohol, 625
Public library for the city of London, 769
Money, on the basis of a decimal system of, for the United Kingdom, 219
Moneys and weights, English, on the expediency of at once decimalising, 211
— of the greater part of the world, series of illustrations of, 211
Mortars, cannon, and Sir Howard Douglas, 599, 613
—, on the wearing out of, 754
Muir, G. W., on the smoke nuisance, considered morally, historically, scientifically, and practically, 131
—, review of ditto, by Mr. C. W. Williams, 241
Vide also Smoke nuisance
Munich Industrial Exhibition of 1854; report on, 9, 22
— collection of photographs illustrative of, 463
Murray, A., on the construction and proper proportions of boilers for the generation of steam, 182
Museum and library, Salford public, 739, 792
—, economic. *Vide* Twining
—, Trade, 62, 335, 519, 555, 572, 591, 598, 612
— *Vide also* Solly
—, explanatory memorandum, descriptive of the selections of samples of animal produce and manufactures in the, 494
Museums, free public libraries and, on establishment of, 572, 733
— act 1850, bill to repeal, 102
— notes on operation of, 737
— 1855 711

Museums, free public libraries and, act (Scotland), 748

750

(Ireland),

N.

Natal, commercial resources of Port, 739

National collections, 615

Nature-printing (direct) from wood, in an endless way, applied to the decorative arts, 544

Navigation, steam, on improvements in, 97
New South Wales, products exhibited by the colony of, at the Paris Universal Exhibition of 1855, 727

Northamptonshire iron ore, and utilization of slag, 760

Northern union of literary and mechanics' institutes, exhibition of, 733

Note, Bank of England, on the new, and the substitution of surface printing from electrotypes for copper-plate printing, 81

an examination of Mr. A. Smee's paper on, by Mr. T. Grubb, 238, 545

bank, question, 116

Notes, bank, cheques, and similar important documents; observations on the means available for securing, against counterfeit and alteration, 89

Notices to institutions, 211, 628

O.

Oil of tar, 47

Oils and other vegetable produce of British Honduras, 159

Ordinance, cast and wrought iron, 78

wrought iron, 59, 555, 598, 713,

740

Vide also Gunnery

P.

Panopticon principle of building factories, 595

Parallel and radial rule, a new, 792

remarks on, 803

Paris, consumption of smoke in, 58

cost of living in, &c., 623, 636

improvements in progress in, Committee as to, 17

international statistical congress at, 685, 731

Society's visit to, archaeological museums and monuments, 742

Universal Exhibition of 1855; artisans' proposed visits to, 411, 463, 571, 603, 627

Committee as to, 17, 97, 133

British Colonial contributions to, 111, 386, 727

economic gallery, 759, 803

fine arts exhibition, 683, 735, 754

general exhibition of agricultural produce in connection with, 343

letter from H.R.H. Prince Albert, President of the Society, suggesting that the Society should visit the, 615

mineral products displayed at, 726

Nottingham goods at, 760

offices in Paris for British section, 93

products exhibited by colony of New South Wales, 727

proposed excursion of members to visit, 298, 615, 627, 639, 651, 663, 675

remarks on ditto, 596, 613, 623, 636, 652

the silks of Piedmont in—*Bombyx Cynthia*, 781

visit of members to, 723

water supply, 556

Parliamentary papers and reports, as to distribution of, 580, 625

reports, weekly list of, 79, 95,

108, 166, 185, 209, 233, 261, 286, 309, 333,

345, 362, 393, 413, 430, 461, 485, 501, 517,

528, 553, 565, 600, 613, 625, 637, 662, 673

Partnership, law of, 68

Partnerships, limited liability in, 77, 104

Patent law—Heath v. Unwin, 681

Patent law amendment act, 1852, 15, 32, 48, 64, 79, 96, 108, 118, 132, 149, 166, 185, 209, 233, 246, 261, 286, 309, 333, 345, 362, 378, 393, 413, 430, 461, 485, 501, 518, 529, 542, 553, 565, 590, 601, 614, 625, 638, 650, 662, 673, 685, 698, 710, 720, 733, 745, 757, 770, 780, 788, 801, 805

office, the; opening of free library and reading-room, 344

Patentees and men of science, 590, 610

Patents, abstract of the report of the Commissioners of, for 1854, 736

American; annual report of the Commissioner for 1853, 99

ditto for 1854, 256

application for, and protection allowed, 15, 32, 48, 64, 79, 96, 108, 118, 132, 149, 166, 185, 209, 233, 246, 261, 286, 309, 333, 345, 362, 378, 393, 413, 430, 461, 485, 501, 518, 529, 542, 553, 565, 590, 601, 614, 625, 638, 650, 662, 673, 685, 698, 710, 720, 733, 745, 757, 770, 780, 788, 801, 805

on taking out, 391

sealed, weekly list of, 16, 32, 48, 64, 80, 96, 108, 118, 132, 150, 166, 186, 210, 234, 246, 262, 286, 310, 334, 346, 362, 378, 394, 414, 430, 462, 486, 502, 529, 542, 566, 601, 614, 626, 638, 662, 674, 686, 698, 710, 721, 734, 746, 758, 770, 780, 789, 802, 805

Pathology, industrial; on the diseases of miners, 347

the flax-dressers' trade,

111, 228

report of committee on

trades which affect the eyes, 119

remarks on, to report, 164

Peat and other vegetable charcoal, and some of its uses, 151

charcoal, the cost of, 164, 184

Photography; trial of Talbot v. Laroche, 100

Plantain fibre, 30

Plumagery, on Chinese and Aztec, 93

Postage, reduction of French, 101

resolutions of

Council as to, 151

receipt and other stamps, perforating, 62

Premiums awarded, session 1854-5, 589

Price's Candle Company; portable stove for heating and cooking, 134

Prizes, special, 167

PROCEEDINGS OF INSTITUTIONS:—

Barking, 31

Barnstaple, 391

Bedford, 251, 285, 392

Berks and Bucks L.A., 755

Bolton M. L., 15

Bradford (Wilts), 15, 786

Brighton Athen., 762

Brighton M.I., 527

Brighton, R.L. and S.I., 377

Bury (Lancashire), 165

Bury St. Edmunds, 762, 786

Carlisle Ch. of Eng. R. and G.L.A., 799

Cheltenham, 392

Chichester, 786

Clapham, 392

Coalbrookdale, 762

Corfe Castle, 742

Coventry, 762

Croydon, 149, 800

Cupar Angus, 285

Darlington, 763

Derby R.L.I., 165

Derby, W.M.I., 79, 231

Dumfries, 786

Dunmow, 31, 165

Gateshead, 231

Hants and Wilts Educ. Soc. 687

Hastings, 232, 392

Highworth, 165

Huddersfield, 763

Leeds M.I. and L.S., 208

Leeds Y.U. of M.I., 260, 527

Liverpool C.I., 393, 787

London:—

Domestic Mission Soc., 232

Islington L. and S.S., 742

Jews and General L. and S.I., 232, 720

London and South-Western R.L. & S.I., 461

Pimlico, 165

Walworth W.M.R. and L.R., 754

Macclesfield, 63

Much Wenlock, 743, 787

Northampton R. and U.K.S., 744

Nottingham, 79, 232

Pembroke Dock, 95, 785

Plymouth, 788

Poole, M.I., 232

Portsea, 564, 800

Preston, 800

Repton, 393

Romford, 788

Royston, 233, 393, 553, 564

Rye, 233

Sevenoaks, 31, 95, 233

Sheffield, 79

Stamford, 800

Stockton-on-Tees, 107

Tenterden M.I.S., 79

Ware, 345

Waterford, 131

Wellington, 107

Westerham, 233

Whitchurch, 233

Wrexham, 107

Yarmouth Y.M.I., 117

Produce (raw) from different parts of the world, on some undeveloped and unappreciated articles of, 33

Public Libraries Act of 1850, bill to repeal, 102

notes on operation of, 737

of 1855, 711

adoption of, in

Hertford, 801

rejected by City

of London, 791

(Scotland) 748

(Ireland) 750

and Museums (free), on

establishment of, 572, 733

Public works for India, especially with reference to irrigation and communications, 395

renewed discussion

on, 431

remarks on discussions on, 481, 490, 549, 558

R.

Railways and canals in India, 427, 431

(low speed) and canals for India, 558

Vide also Public Works

Rating of Institutions, 13, 582

Raw produce from different parts of the world, on some undeveloped and unappreciated articles of, 33

of British Honduras, 159, 547,

646, 714, 783

Receipts, payments, and expenditure, annual statement of, for the year ending 31st May, 1855, 540

Reformatory discipline, 624

schools, 496

Reid, D. B., M.D., F.R.S.E., notes on the revision of architecture, in connection with the useful arts, with special illustrations of the ventilation of St. George's Hall, Liverpool, 379

Reid, H., on decimal coinage, 222

Report from the Council on the close of the One Hundred and First Session, 531

T. Twining, Jun., V.P., on special collections of articles of domestic and sanitary economy for the use of the working classes, 675

of Committee on industrial pathology, on trades which affect the eyes, 119

remarks

on the report, 164

of sub-committee on international commercial law, 460

of the Commissioner of Patents for the United States for 1853, 99

ditto for 1854, 256

of the Commissioner of Patents for 1854, 736

Secretary to the Council, as to the business of the Institutes' Union, 567

on Munich Industrial Exhibition of 1854, 9, 22

Royal Scottish Society of Arts, 46

Rule, parallel and radial, a new, 792

Rye grass, Italian, and town sewage, 325

S.

Safes, fire proof, 680

Safety lamp, miners', 363

Sails, tanning, 793
 St. George's Hall, Liverpool, ventilation of, 379
 Salford public library and museum, 739, 792
 Sanderson, C., on the manufacture of steel, as carried on in this and other countries, 450
 —, remarks on ditto, 550
 Sanitary applications of charcoal, 695, 782 — and on ventilation, 552, 665
 — cart, the camp and barrack, and portable latrines or soil pans, 687, 697
 Scheutz calculating machine, 411
 School, trade, at Wandsworth, 670
 Schools, reformatory, 496
 Science, advancement of, 704
 — (elementary) as a branch of national education, on the importance of, 622
 Scrivenor, Harry, on the growth and expansion of our foreign and colonial trade in iron, and the fiscal obstructions to its extension, 65
 Sewage manure, its preparation and application to agricultural purposes, 14
 — *Vide also* Manure, liquid
 — of London, on the, 263
 —, remarks on the discussion, 308
 —, renewed discussion, 311
 — of towns and cities. *Vide* Chemical purification
 —, town, and Italian rye grass, 325
 Ships and steamers, descriptive measurement of, 656
 Ships of war, on the construction of, and floating batteries, 299
 Shipwrecks by lightning, 127
 Silk series of animal products, 747
 Silkworm and its products, the commercial consideration of the, 197
 —, remarks on the discussion as to, 231
 —, Indian, failure of the, in Malta, 639
 Silks (the) of Piedmont, 781
 Simmonds, P. L., on some undeveloped and unappreciated articles of raw produce from different parts of the world, 33
 —, on the British colonial contributions to the Paris Industrial Exhibition, 111, 386
 —, on the commercial products of the animal kingdom, 520
 —, a few remarks on animal products, 663
 —, the wools of commerce, and the information to be obtained thereon, 677
 —. animal products—the silk series, 747
 —, on new farinas and starches, 774
 Slag of smelting furnaces, 390
 —, utilisation of, and Northamptonshire iron ore, 760
 Slags—the utilisation of the molten mineral products of smelting furnaces, 335
 —, 692, 611
 Smee, A., F.R.S., on the new Bank of England note, and the substitution of surface printing from electrotypes for copper-plate printing, 81
 — an examination of ditto, by Mr. T. Grubb, 238, 645
 Smith, Dr. W. H., the utilisation of the molten mineral products of smelting furnaces, 335
 Smoke, consumption of, in Paris, 58
 — nuisance, the, 109
 — on the, considered morally, historically, scientifically, and practically, 134
 — review of ditto, by Mr. C. W. Williams, 241
 — discussion on remarks on ditto, 162, 230, 259, 330
 —, question, the, 27
 Smokeless furnace, the down draught, 100
 SOCIETIES:—
 British Meteorological Society, 59
 Institution of Civil Engineers; annual general meeting, 102
 Royal Scottish Society of Arts, 46
 Society for the promotion of industrial art, Calcutta, 751

Society's visit to Paris—archæological museums and monuments, 742
 Solly, Prof. E., F.R.S., on the mutual relations of trade and manufactures, 487
 Sopwith, T., F.R.S., notes on the mineral products exhibited at the Paris Universal Exhibition of 1855, 726
 Stamps, perforating postage, receipt and other, 62
 Starches and farinas, on new, 774
 Statistical congress (international) at Paris, 685, 731
 Statistics of the iron manufacture, 163, 229, 301, 375
 Steam ships, the capability for mercantile transport service of, 466
 — *Vide also* Henderson
 — navigation, on improvements in, 97
 Steel, on the manufacture of, as carried on in this and other countries, 450
 —, remarks on Mr. Sanderson's paper, 550
 — *Vide also* Heath
 v. Unwin
 —, tempering of, 495
 Stolle, Dr. Edward, death of, 47
 Stones, artificial, and hydraulic limes, and different novel applications of soluble alkaline silicates, 609
 Stones, W., observations on the means available for securing bank notes, cheques, and similar important documents against counterfeited and alteration, 89
 Stove (portable) for heating and cooking; Price's Candle Company's, 134
 Stoves, cottager's, 341
 Strength of materials, 742, 804
 Sugar manufacture, 600
 Surface printing from electrotypes substituted for copperplate printing in the new Bank of England note, 81
 — an examination of Mr. A. Smee's paper on, by Mr. T. Grubb, 238, 536
 Symons, J., B.A., on juvenile crime as it affects commerce, and the best means of repressing it, 415
Vide also Reformatory discipline

T.

TABLES.

Abstract of annual amount of tolls collected on the Nuddah rivers from 1st May, 1837, to 30th April, 1854, 564
 Abstract of registers of borings on Kind's system, 508
 Annual balance-sheet of Tiptree-hall farm, 53
 Annual statement of the Society's receipts, payments, and expenditure, for the year ending 31st May, 1855, 540
 Area of the waterway of nine pairs of bridges, one bridge of each pair having a drainage ground of the chalk, and the other of the London clay formations, 172
 Capacity of different specimens of chalk for holding water, 175
 Coinage, the; pounds, shillings, pence and farthings issued from Henry VII. to Victoria inclusive, 213
 Comparative analysis of ships and steamers, giving the old, late, new, and proposed measurement for tonnage; their draught, displacement, weight, burthen, resistance, and speed realised, 688
 Comparative cost and working of two descriptions of works, as applied to the distribution of liquified manures, 448
 Consumption of carbon and nitrogen by the total population of London, 273
 Discrepancies in silver coins reputed to be equivalents, 214
 — gold —, 214
 Disparities in gold coins mistaken for equivalents, 214
 Estimated constituents in the excrements of the total population of London, 273
 — of the human excrements of London, 274
 Exports of British iron, including unwrought steel, 69
 Ounces of carbon and nitrogen consumed in food in 24 hours, estimated from dietaries, or by direct analysis of food, 265
 — per head per day, consumed in food, expired by the lungs, voided in excrements, in growth, perspiration, loss, &c.

Ounces of carbon expired in 24 hours, estimated by direct experiment on human respiration, 269
 — human excrements and their constituents in 24 hours, quoted or calculated from various experimenters, 270
 Pantograph, exhibiting the mineral changes and formations of the smelting furnace, 337
 Progressive alterations of French standards of value, 218
 Quantities of fine gold and of fine silver in the 20 shillings or £1 sterling, from the Conquest to 1855, 216
 Rates of land and water carriage in India, 563
 Relative numbers of persons employed at each age, as miners, agricultural labourers, and labourers in town and country, 353
 Relative value of gold and silver, 216
 Selection from experiments in which wheat has been grown on the same land for 11 years in succession, 263
 Summary of analyses of constituents of solid sewage manure, &c., 276
 Tariffs of foreign countries relating to iron, with rates of duty in the years 1846 and 1853, 70
 Talbot v. Laroche; trial at Guildhall, 100
 Tanning sails, 793
 Tar, oil of, 47
 Tiptree-hall farm, account of operations at, 49
 Tonnage, measurement of. *Vide* Atherton and Henderson
 Trade and manufactures, on the mutual relations of, 487
 — collection of the Great Exhibition of 1851, 62
 —, the custody of the Society's, 597
 — in iron, on the growth and expansion of our foreign and colonial, and the fiscal obstructions to its extension, 65
 — Museum, 62, 335, 519, 555, 572, 591, 597, 612
 —; explanatory memorandum, descriptive of the selections of samples of animal produce and manufactures in the, 494
 — *Vide also* Solly
 — school at Wandsworth, 670
 Trades which affect the eyes, report of the Committee on industrial pathology on, 119
 —, remarks on the report, 164
 Transport service (mercantile), the capability for, of steam ships, with reference to the mutual relations of their tonnage, displacement, engine power, steaming speed, distance to be run without re-coaling, tons weight of cargo, and the expense incurred per ton of cargo conveyed, 466
 — *Vide also* Henderson
 Twining, T., jun., V.P., report on special collections of articles of domestic and sanitary economy for the use of the working classes, 675
 Tyre, Holmes' patent, 503
 U.
 Underground manuring, 783
 —, is it a novelty? 228
 Unions, local sub, 517
 V.
 Ventilation and warming, notes on, 12
 — of apartments and hospitals, 29
 — of St. George's Hall, Liverpool, 379
 —, on, and on the sanitary applications of charcoal, 652, 665
 Vessels of war, on, 775
 — *Vide also* Ships of war
 Vinegar plant, the, 672, 684, 696
 W.
 Walworth working men's reading and lecture rooms, 754
 Wandsworth trade school, 670
 War, on vessels of, 775
 —, ships of, and floating batteries, 299
 Warming and ventilation, notes on, 12
 Water supply, Paris, 556

Water supply to the metropolis, the chalk strata considered as a source for the, 168 —, remarks on the discussion as to, 230, 244, 285, 325	Weights, measures and coinage, international decimal, 593 Whitehead, Messrs., miners' safety lamp, 363 Williams, C. W., review of Mr. Muir's paper on the smoke nuisance, 241 Wilson, G. F., F.R.S., on a new process of obtaining and purifying glycerine, 729 Wilson, Prof. John, F.R.S.E., on the iron industry of the United States, 247 —, remarks on discussion, 305, 328	Women, education and physical training of, 795 Wools of commerce, and the information to be obtained thereon, 677 Working classes and mechanics' institutions, 564, 611, 642 —, report on special collections of articles of domestic and sanitary economy for the use of the, 675 Wrought iron ordnance, 59, 555, 598, 713, 740
--	--	--

—, *Vide* also Sanitary applications of charcoal
Weights and moneys, English, on the expediency of at once decimalizing, 211

ERRATA.

- Page 29, col. 1, line 4,—article on the Ventilation of Apartments and Hospitals, for "50 to 75 cubic centimetres," read "50 to 75 cubic metres."
" col. 2, line 7,—For "consumes," read "produces."
" " line 8,—For "absorbed," read "generated."
Page 30, col. 1, line 45,—For "2,550," read "2,250."
" " line 48,—For "1,982," read "1,928."
Page 33, col. 1, line 26,—For "Tartons," Charles, read "Sartoris," Charles.
Page 123, col. 1, line 33,—For "smoker," read "worker."
" col. 2, line 31,—For "fine parts," read "fore parts."
" Bottom and top of next page,—For "pinkers," "pinker," and "pinked," read "prickers," "pricker," and "pricked."
Page 178, col. 2, line 43, *et seq.*,—For "an abstraction from the basin of some 500,000,000 or 600,000,000 millions of gallons a year, and it moreover showed the continuous lowering of the water under London," read "if the *daily* abstraction of only 5,000,000 to 6,000,000 gallons of water had caused so serious a depression of the springs under London, as evidenced by the diagram presented by me (Mr. John Braithwaite), what would have been the depression if 50,000,000 to 60,000,000 gallons of water (the minimum daily supply to the metropolis) had been abstracted?"
Page 271, 8th line of figures from bottom,—For "48'10" read "45'62;" for "3'083," read "2'737;" for "556," read "581;" for "410," read "456."
" last line of figures,—For "157," read "057."
Page 324, col. 2, line 34,—For "At Nottingham," read "At Tottenham, Middlesex."
Page 325, col. 2, line 51,—For "efficient for soil," read "efficient for evil."
Page 390, col. 2, lines 32 and 33,—For "coin piece" read "4 coin piece."
Page 391, col. 1, line 8,—For "This expression," read "This arrangement."
Page 407, col. 1,—A portion of Col. Sykes's speech on Public Works for India, omitted at this place, will be found at page 429.
Page 412, col. 1, line 27,—For "making," read "many."
" col. 2, line 3,—For "our," read "an."
Page 413, col. 1, line 18,—For "representation," read "representative."
" " line 21,—For "our charge," read "overcharge."
Page 438, col. 2, lines 18, 19, 20, and 21,—For "and insufficient to carry steamboats of large burthen—he meant in the peninsula of India. He could understand that it might be so in a hilly country; where we caught, &c." read "and insufficient to carry steamboats of large burthen. In the peninsula of India, in a hilly country, where we caught, &c."
Page 481, col. 1, line 50,—For "160 ounces," read "16 ounces."
Page 525, col. 1, last line, and col. 2, first line,—For "certainly more sinned against," read "certainly *not* more sinned against."
Page 578, col. 1, at bottom,—The declaration here printed is incorrect; it should be as given in page 591, col. 1.
Page 608, col. 1, line 12,—For "three tons," read "thirty."
" col. 2, line 21,—For "pounds," read "tons."
" " line 43,—For "1754," read "1854."
" " line 47,—For "Herwisen," read "Herwain."
Page 609, col. 1, line 13,—For "Treve," read "Frere."
Page 741, col. 2, line 2,—For "decimal *fortin*," read "decimal *form*."
Page 773, col. 2, line 8, for "XII," read "XIII."